▶ Memory Check for Windows 3.x, Windows 95 and Windows NT

▶ Version 5.3 - May 1997

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Contents for Memory Check Help

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Introduction

Memory Check (part of a suite of three (3) diagnostic programs called **Link Check**) allows the user to view, load and unload modules currently in memory. You may also view the current status of memory, including the amount of free memory left.

Important version information about each module can be displayed and you may create and print a summary report of the state of the system.

Memory Check really comes into play when some program has ended abnormally and has left modules lying around in memory. The system might behave irratically or more to the point, those modules take up valuable memory. In these situations you can use **Memory Check** to unload those modules and save yourself a reboot of Windows.

Warning: Sometimes a clean unload is not possible and you may find yourself unceremoniously dumped back on to the C: prompt, so please do use care when unloading.

You may also verify exactly which version of a module is currently loaded in memory. Sometimes some programs will not run because a wrong version of a particular module (.DLL) has already been loaded into memory by some other application. Windows does not load a new copy of a file with the same file name but will simply increase the "usage count" of the module already in memory. These "usage counts" are displayed by **Memory Check** as a number in parenthesis () next to the file name.

▶ __Keyboard Support__

The main window supports the keyboard as well as the mouse.

Key actions in the main window are as follows:

Tab	Switch between the main window and the Version/Key windows.
Enter	View version information window.
Spacebar	Select a module.
Arrow keys	Navigate up/down the list of modules or Version/Key windows.
Control+O	Load an executable into memory.
Delete	Unload an executable from memory.
Control+V	Display Version Information window.
Control+K	Display Key window.
Control+C	Create Memory report.
Control+P	Print Memory report.
Control+T	Set Filters for the main window.
F1	View Help.
F2	Check function calls in the selected module.
F3	Check links for the selected module.
F5	Refresh main window.
F6	Memory status dialog.
Alt+F4	Quit Memory Check.

▶ **Menu Options**

Please select one of the following:

File:
Load
Unload
Create Memory Report
Print Memory Report
Exit

Options:
Display Version Information
Display Key to Symbols
Check Function Calls
Check Links to Other Modules
Refresh
Memory Status
Set Filters

Preferences:
Show Lowercase File Names
Bold Font
Show Toolbar Tips
Show Toolbar
Show Status Bar
Show Settings Now
Save Settings on Exit

Help:
Contents
Search for Help on
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About Memory Check

▶ Dialog Boxes

Please select one of the following:

Set Filters dialog
Memory Status dialog

■ Set Filters Dialog

This dialog box is invoked from the **Set Filters** menu option under the **Options** menu.

In this dialog, enter the file extensions that you would only like to see in the main window.

Separate each extension with a semi-colon (;). You may include the dot (.) in the extension even though it's not necessary.

Example: **DLL;EXE;FON**

Leave the entry field **blank** to view **all** modules in memory.

Click on **OK** to view only the modules which have the specified extensions.

Click on **Cancel** to return to the main window without any further action.

▦ Memory Status Dialog

This dialog box is invoked from the **Memory Status** menu option under the **Options** menu.

The **Largest Free Block** field displays the largest free block of contiguous linear memory in the system, in bytes.

The **Max. Pages Available** field specifies the maximum number of pages that could be allocated in the system (the value of the Largest Free Block divided by the value of Page Size).

The **Max. Pages Lockable** field specifies the maximum number of pages that could be allocated and locked.

The **Total Linear Space** field specifies the size of the total linear address space, in pages.

The **Total Unlocked Pages** field specifies the number of unlocked pages in the system. This value includes free pages.

The **Free Pages** field specifies the number of pages that are not in use.

The **Total Pages** field specifies the total number of pages the virtual-memory manager manages. This value includes free, locked, and unlocked pages.

The **Free Linear Space** field specifies the amount of free memory in the linear address space, in pages.

The **Swap File Pages** field specifies the number of pages in the system swap file.

The **Page Size** field specifies the system page size, in bytes.

The **Free Memory** field specifies the amount of free memory, in bytes. This is equivalent to what Program Manager reports via its About dialog.

Click on the **Refresh** pushbutton to update the current memory status.

▶ Guide to the Main Window

The **Memory Check** main window shows all modules currently loaded in memory.

If you select any one of the shown modules and **double-click** it with the mouse, **Memory Check** reveals version information for the selected module.

This is identical to selecting it with the mouse and choosing the **Display Version Information** menu option under **Options**. In both cases a version information window will appear at the bottom of the main window.

Each module is prefixed with a symbol identifying the module type. To find out what these symbols mean, please select the **Display Key to Symbols** menu option under **Options**. The key window will appear at the bottom of the main window.

A number (usage count) is shown in brackets **()** which indicates the number of references made to that module by others in the system.

To view only certain file types, you may select the **Set Filters** menu option under **Options**. For further information please see <u>Set Filters</u> dialog box.

To hide the version or the key windows, please re-select the same menu items as for invoking them. Alternatively, **right-click** with the mouse on top of these windows and select the **Hide** menu option from the popup menu that follows.

As a short cut, you may also **right-click** on the main window to access the options in the **Options** menu.

If you prefer to use the keyboard, please see <u>Keyboard Support</u> for the key assignments.

▲ File: Load

Click on this menu option or on the short cut on the Toolbar to load an executable into memory.

▼ File: Unload

Click on this menu option or on the short cut on the Toolbar to unload an executable from memory.

WARNING: Unloading a module from memory can cause damage to your system. This option should be used with the utmost of care and is intended for use only when a program has ended abnormally and has left module(s) lying around in memory.

Karri Software Limited is in **NO WAY RESPONSIBLE for any damage done** and **the user must assume the FULL RISK** on using it.

You will be warned before this action is executed and you will need to confirm this action.

▤ File: Create Memory Report

Click on this menu option or click on the short cut on the Toolbar to create a report listing all of the modules currently shown in the main window with dates, times, sizes and version numbers.

Select Sample Memory Report to view a sample report.

File: Print Memory Report

Click on this menu option or click on the short cut on the Toolbar to print a report listing all of the modules currently shown in the main window with dates, times, sizes and version numbers.

Select Sample Memory Report to view a sample report.

▶ Sample Memory Report

Sample output (only a part is shown):

```
===========================================================================
                        Memory Check Report
===========================================================================

    Module     Date    Time      Size     File Ver    Prod Ver  Filename
(Usage Count)
---------------------------------------------------------------------------
---------
     APP850  26/05/95  10:57      36672       3.10        3.10  C:\WINDOWS\
SYSTEM\APP850.FON (1)
   CGA40850  26/05/95  10:57       6352       3.10        3.10  C:\WINDOWS\
SYSTEM\CGA40850.FON (1)
   CGA80850  26/05/95  10:57       4320       3.10        3.10  C:\WINDOWS\
SYSTEM\CGA80850.FON (1)
       COMM  01/11/93  03:11       5968       3.11        3.11  C:\WINDOWS\
SYSTEM\COMM.DRV (11)
    COMMDLG  01/11/93  03:11      97936       3.11        3.11  C:\WINDOWS\
SYSTEM\COMMDLG.DLL (2)
      COURE  26/05/95  10:57      23408       3.10        3.10  C:\WINDOWS\
SYSTEM\COURE.FON (1)
    CTL3DV2  16/08/93  00:00      21648       2.05     2,0,5,0  C:\WINDOWS\
SYSTEM\CTL3DV2.DLL (1)
    DISPLAY  13/10/94  09:00     225712    3.10.061    3.10.061 C:\WINDOWS\
SYSTEM\S3TRIO.DRV (12)
   EGA40850  26/05/95  10:57       8384       3.10        3.10  C:\WINDOWS\
SYSTEM\EGA40850.FON (1)
   EGA80850  26/05/95  10:57       5328       3.10        3.10  C:\WINDOWS\
SYSTEM\EGA80850.FON (1)
   FIXFONTS  26/05/95  10:57       5360       3.10        3.10  C:\WINDOWS\
SYSTEM\VGAFIX.FON (1)
      FONTS  26/05/95  10:57       7280       3.10        3.10  C:\WINDOWS\
SYSTEM\VGASYS.FON (2)
        GDI  01/11/93  03:11     220800       3.11        3.11  C:\WINDOWS\
SYSTEM\GDI.EXE (11)
    GRABBER  27/04/92  02:21      15360       3.10        3.10  C:\WINDOWS\
SYSTEM\S3911GRB.3GR (2)
      KBDUK  01/11/93  03:11       1428          -           -  C:\WINDOWS\
SYSTEM\KBDUK.DLL (1)
---------------------------------------------------------------------------
---------

 15 modules listed.
```

▶ Options: Display Version Information

Click on this menu option to show the **Version window** at the bottom of the main window.

This window will show version and file details of the selected module and can also be invoked from the popup menu by **right-clicking** with the mouse anywhere over the main window.

You may hide this window either by **right-clicking** on the mouse whilst over this window or by re-selecting the same menu option.

▶ Options: Display Key to Symbols

Click on this menu option to show the **Key window** at the bottom of the main window.

This window will show an explanation to the symbols used in the main window and can also be invoked from the popup menu by **right-clicking** with the mouse anywhere over the main window.

You may hide this window either by **right-clicking** on the mouse whilst over this window or by re-selecting the same menu option.

⌠ₙ Options: Check Function Calls

Click on this menu option or on the short cut on the Toolbar to launch **Function Check** component of **Link Check**.

You can examine all of the function calls in the module as well as the ones that it requires to be present in the system to run properly.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F2**.

![icon] Options: Check Links to Other Modules

Click on this menu option or on the short cut on the Toolbar to launch **Link Check**.

You can view a list of all of the modules that the selected one is linked to in the system.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F3**.

▶ Options: Refresh

Click on this menu option to refresh the main window with updated information.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F5**.

▶ Options: Memory Status

Click on this menu option to display the Memory Status dialog box.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **F6**.

▶ Options: Set Filters

Click on this menu option to display the Set Filters dialog box.

This menu option can also be invoked by **right-clicking** with the mouse anywhere in the main window or by pressing **Control+T**.

▶ Preferences: Show Lowercase File Names

Click on this menu option to draw the file names in the main window in lowercase or as is.

If this menu option is checked, then the file names will be in lowercase, otherwise as is.

▶ Preferences: Bold Font

Click on this menu option to turn bold font on and off.

If this menu option is checked, then the font will be bold, otherwise normal.

▶ __Toolbar__

The Toolbar contains the following short cuts:

▶ <u>Load</u>

▶ <u>Unload</u>

▶ <u>Create Memory Report</u>

▶ <u>Print Memory Report</u>

▶ <u>Check Function Calls</u>

 <u>Check Links to Other Modules</u>

▶ <u>Memory Status</u>

▶ <u>Set Filters</u>

 <u>Exit Program</u>

 <u>Help Contents</u>

▶ Ordering Information

Prices for **Link Check** are as follows:

Link Check for Windows 3.x   **$29**
Link Check for Windows 95   **$35**
Link Check for Windows NT   **$35**
Link Check Suite (all three above) **$50**

Site licenses are also available at $25/$30/$30/$45 respectively for more than 10 purchases.

You may order **Link Check** via:

CompuServe
NorthStar Solutions

CompuServe automatically adds the registration fee to your monthly bill.

NorthStar Solutions accept credit cards, checks and money orders via the WWW, Telephone, Fax, Email or Post.

You may also order via the Web through our homepage **http://ourworld.compuserve.com/homepages/KarriSL**.

The moment either of the above notify us of a successful registration, we will email you the latest retail version of the registered product.

▶ Ordering via CompuServe

Ordering through CompuServe's Software Registration facility SWREG is quick and easy.

Log onto CompuServe and **GO SWREG**. Follow the instructions on screen and use one of the following registration IDs when prompted:

Link Check for Windows 3.x   **ID 7160**
Link Check for Windows 95   **ID 10627**
Link Check for Windows NT   **ID 10094**
Link Check Suite (all three above) **ID 10095**

CompuServe will automatically email us with a registration notification and once upon receipt we will email the license file to you.

▶ Ordering via NorthStar Solutions

Ordering through NorthStar Solutions is quick and easy. Please quote one of the following product IDs when ordering:

Link Check for Windows 3.x   **ID 1455**
Link Check for Windows 95   **ID 1456**
Link Check for Windows NT   **ID 1457**
Link Check Suite (all three above) **ID 1458**

INTERNET ORDERS
Visit NorthStar Solutions at
http://nstarsolutions.com
and fill out their online order form--fast, easy and secure!

Alternatively, a direct link to the **Link Check** page is **http://nstarsolutions.com/904.htm**.

PHONED ORDERS
Calls are taken 10 am - 8 pm, EST, Monday thru Saturday.
1-800-699-6395 (From the U.S. only.)
1-803-699-6395

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1-803-699-5465

E-MAILED ORDERS
CompuServe: starmail
America Online: starmail
Internet: starmail@compuserve.com

MAILED ORDERS
You may register with a check or money order.
Make them payable to **"NorthStar Solutions"** and send them to:
PO Box 25262, Columbia, SC   29224, USA

Please provide (or be prepared to provide) the following information:
* The program you are registering and its ID (found at the top of this page)
* Your mailing address
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* Your E-Mail address (so NorthStar Solutions can send you an E-Mail confirming your order and so we can contact you easily with the license file and any important follow-up information, upgrade announcements, etc.).

NorthStar Solutions will automatically email us with a registration notification and once upon receipt we will email the license file to you.

▶ What's New

Major changes from Version 5.00 to Version 5.30

- Visual Basic 4.0 (16-bit) support added to the 16-bit version
- Visual Basic 4.0 (16- and 32-bit) support added to the 32-bit versions
- Visual Basic 5.0 (32-bit) support added to the 32-bit versions
- Print problems resolved to the Windows 95 version
- Open Database Connectivity (ODBC) driver support added
- .OCX, .OLB, .TLB files are now shown
- 32-bit Memory Check for Windows 95 version now shows 16-bit modules too
- Windows NT version released with Memory Check
- Our ordering process has moved totally online now
- Other bugs fixed including the CTL3DV2.DLL problem in Function Check

This is basically a maintenance release but also introduces the possibility of getting the retail version within minutes of registering thanks to the new license file.

Due to this form of registration, all three versions of **Link Check** are now available as **separate** products.

* See Trademarks

▶ System Requirements and Uninstall

Link Check for Windows 3.x requires Windows 3.1* or later or Windows for Workgroups 3.11*.
Link Check for Windows 95 requires Windows 95* or later.
Link Check for Windows NT requires Windows NT 3.51* or later.

* See Trademarks

The 16-bit Windows 3.x package consists of the following files:

```
 1) WLCHECK.EXE    Link Check itself
 2) WLCHECK.HLP    Link Check Help file
 3) WMCHECK.EXE    Memory Check component of Link Check
 4) WMCHECK.HLP    Memory Check Help file
 5) WFCHECK.EXE    Function Check component of Link Check
 6) WFCHECK.HLP    Function Check Help file
 7) WLCCOMM.DLL    Common Routines for all of the Link Check components
 8) LCHOOKS.DLL    More Common Routines for the Link Check components
 9) FILE_ID.DIZ              File for Bulletin Board operators
10)  README.TXT    Read Me file
```

To **uninstall Link Check** delete the above files and the following:

```
 1) WLCHECK.INI    Created by Link Check in the Windows directory
 2) WMCHECK.INI    Created by Memory Check in the Windows directory
 3) WFCHECK.INI    Created by Function Check in the Windows directory
```

The 32-bit Windows 95 package consists of the following files:

```
 1) WLCHK95.EXE    Link Check itself
 2) WLCHK95.HLP    Link Check Help file
 3) WMCHK95.EXE    Memory Check component of Link Check
 4) WMCHK95.HLP    Memory Check Help file
 5) WFCHK95.EXE    Function Check component of Link Check
 6) WFCHK95.HLP    Function Check Help file
 7) WLCCOM95.DLL   Common Routines for all of the Link Check components
 8) LCHKS95.DLL    More Common Routines for the Link Check components
 9) FILE_ID.DIZ              File for Bulletin Board operators
10)  README.TXT    Read Me file
```

To **uninstall Link Check** delete the above files.

The 32-bit Windows NT package consists of the following files:

  1) WLCHKNT.EXE   **Link Check** itself
  2) WLCHKNT.HLP   Link Check Help file
  3) WMCHKNT.EXE   **Memory Check** component of Link Check
  4) WMCHKNT.HLP   Memory Check Help file
  5) WFCHKNT.EXE   **Function Check** component of Link Check
  6) WFCHKNT.HLP   Function Check Help file
  7) WLCCOMNT.DLL   Common Routines for all of the Link Check components
  8) LCHKSNT.DLL   More Common Routines for the Link Check components
  9) FILE_ID.DIZ   File for Bulletin Board operators
10)   README.TXT   Read Me file

To **uninstall Link Check** delete the above files.

▶ File: Open Previous Module

Click on this menu option to re-open a recently used module.

▶ File: Open Previous Module

Click on this menu option to re-open a recently used module.

▶ File: Open Previous Module

Click on this menu option to re-open a recently used module.

▶ File: Open Previous Module

Click on this menu option to re-open a recently used module.

▶ **File: Exit**

Click on this menu option or click on the short cut on the Toolbar to exit the program.

▶ **Preferences: Show Toolbar Tips**

Use this menu option to turn the Toolbar button explanations/hints on and off.

▶ Preferences: Show Toolbar

Use this menu option to show or hide the Toolbar.

▶ <u>Preferences: Show Status Bar</u>

Use this menu option to show or hide the Status Bar.

▶ Preferences: Save Settings Now

Select this menu option if you want the program to save the current position and size of the main window plus all other settings now.

When you restart the program, it will reposition, size and configure itself to the saved values.

▶ <u>**Preferences: Save Settings on Exit**</u>

Select this menu option if you want the program to save the current position and size of the main window plus all other settings when you exit the program.

When you restart the program, it will reposition, size and configure itself to the saved values.

![?] Help: Contents

This menu item shows the Contents page of the help file. Alternatively, click on the short cut on the Toolbar.

▶ Help: Search for Help on

This menu item shows the Search dialog box for the help file.

▶ Help: How to Use Help

This menu item shows how to use Help.

▶ <u>Help: About</u>

Use this dialog box to view the copyright information for this program.

▶ Copyright and License Agreement

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Memory Check 5.3
Function Check 5.3
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ODBC is a trademark of Microsoft Corporation.

▶ Official Home

The official home of **Link Check** is the **Windows Utility (GO WINUTIL)** forum on CompuServe. You can direct technical questions about **Link Check** to the support staff in this forum.

▶ Registered Version Details

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As a registered user of **Link Check**, you will receive the following benefits:

1. Free technical support via Email
2. Free upgrades via the license file

Currently (May 97) we have no plans to charge for upgrades. Once the license file is installed, any upgrades will be seamless. All you need to do is to obtain/download a new copy and install over the old version. The presence of the license file will unlock the retail version automatically so you need to register **only once**.